

Abstract

The present invention relates to the diol intermediate of citalopram useful for treatment of
5 depression, which is the crystal of free base of
3-hydroxymethyl-4-[1-(4-fluorophenyl)-1-hydroxyl-4-(dimethylamino)] butylbenzonitrile and the
method of crystallization thereof. The present invention has disclosed the method to prepare pure
citalopram and its purified salts through crystallization of the described base; the optical resolution
method of citalopram diol intermediate, the method to prepare S-citalopram and its purified salts by
10 crystals mentioned above. The present invention has also disclosed the method to prepare
citalopram and its purified salts, S-citalopram and its purified salts, as well as pharmaceutical
formulation thereof obtained. Using methods of the present invention, the quality and yield of the
product can be significantly improved, and the production cost of the medicinal material can be
reduced.